

Commissioner for Patents
Amendment dated September 30, 2005
Response to Final Office Action dated June 30, 2005
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Serial No.: 10/054542
Art Unit: 3729
Examiner: Trinh
Docket No.: RPS9 2000 0103 US2

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 20 (canceled).

21 (previously presented). A method for reducing impedance within a reference path in a printed circuit board comprising the steps of:

forming said printed circuit board comprising a plurality of conductive layers, wherein one of said plurality of conductive layers is a first layer, wherein one of said plurality of conductive layers is a second layer, wherein said printed circuit board further comprises two or more vias interconnecting two or more conductive layers of said plurality of conductive layers, wherein a first of said two or more vias is part of a signal path configured to carry said signal from said first layer to said second layer, wherein a second of said two or more vias is part of a reference path configured to carry said signal from a third layer to a fourth conductive layer; and

embedding an electrical component in said second of said two or more vias between two conductive layers of said plurality of conductive layers.

22 (currently amended). The method as recited in claim ~~21~~ 27, wherein said electrical component is a capacitor.

23 (currently amended). The method as recited in claim ~~21~~ 27, wherein said second via of said two or more vias is a via adjacent to said first via of said two or more vias.

24 (canceled).

25 (currently amended). The method as recited in claim ~~21~~ 27, wherein a diameter from one end of said electrical component changes to an other end of said electrical component, wherein said second via of said two or more vias is configured so that one end of said second via of said two or more vias changes in diameter to an other end of said second via of said two or more vias.

26 (original). The method as recited in claim 25 further comprising the step of:

embedding said electrical component between two conductive layers of said plurality of conductive layers within said printed circuit board by adjusting the diameter of said electrical component and the diameter of said second via of said two or more vias.

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27 (previously presented). A method for reducing impedance within a reference path in a printed circuit board comprising the steps of:

forming said printed circuit board comprising a plurality of conductive layers, wherein one of said plurality of conductive layers is a first layer, wherein one of said plurality of conductive layers is a second layer, wherein said printed circuit board further comprises two or more vias interconnecting two or more conductive layers of said plurality of conductive layers, wherein a first of said two or more vias is part of a signal path configured to carry said signal from said first layer to said second layer, wherein a second of said two or more vias is part of a reference path configured to carry said signal from a third layer to a fourth conductive layer; and

embedding an electrical component in said second of said two or more vias between two conductive layers of said plurality of conductive layers;

wherein said electrical component has a greater diameter in a center than at ends of said electrical component, wherein each end of said electrical component has a conductive cap which is tinned.

28 (currently amended). The method as recited in claim ~~24~~ 27, wherein said electrical component is packaged as a pin, wherein each end of said electrical component is soldered to said two conductive layers of said plurality of conductive layers within said printed circuit board.

29 (currently amended). The method as recited in claim ~~24~~ 27, wherein said second layer is configured to carry said signal to a load, wherein said third layer is configured to return said signal from said load.

30-42 (canceled).